

AMENDMENTS

In the Claims:

This listing of claim replaces all prior versions, and listings, of claims in the application:

1. (Withdrawn) A method of manufacturing a semiconductor device comprising:
bonding a supporting substrate to a first surface of a semiconductor wafer on which a semiconductor element is formed;
back-grinding a second surface of the semiconductor wafer, the second surface being opposite to the first surface; and
reducing a roughness of the back-ground second surface by etching the back-ground second surface.
2. (Withdrawn) The method of claim 1, wherein the etching comprises a wet etching.
3. (Currently Amended) A method of manufacturing a semiconductor device comprising:
bonding a supporting member to a first surface of a semiconductor wafer on which a semiconductor element is formed;
forming a groove in the semiconductor wafer by a first etching of a second surface of the semiconductor wafer, the second surface being opposite to the first surface; and
rounding a corner of the groove by a second etching of the second surface.
4. (Currently Amended) The method of claim 3, wherein the second etching comprises a wet etching.
5. (Withdrawn) The method of claim 2, wherein the wet etching comprises dropping an etching solution on the back-ground second surface and spinning the semiconductor wafer to spread the etching solution over the second surface.
6. (Original) The method of claim 4, wherein the wet etching comprises dropping an etching solution on the second surface in which the groove is formed and spinning the semiconductor wafer to spread the etching solution over the second surface.

7. (Original) The method of claim 5 or 6, wherein a direction of the spinning is reversed during the wet etching.

8. (Withdrawn) The method of claim 1, wherein the wet etching comprises a chemical mechanical polishing.

9. (Withdrawn) The method of claim 2, 5 or 8, wherein the wet etching is performed so as to remove a foreign substance from the back-ground second surface.

10. (Original) The method of claim 4 or 6, wherein the wet etching is performed so as to remove a foreign substance from the groove and the second surface.

11. (Withdrawn) A method of manufacturing a semiconductor device comprising:
providing a semiconductor wafer comprising a first semiconductor element and a second semiconductor element that are formed on an insulation film formed on a first surface of the semiconductor wafer;

forming a first wiring for the first semiconductor element on the insulation film and a second wiring for the second semiconductor element on the insulation film so that the first and second wirings are disposed adjacent a border between the first and second semiconductor elements;

bonding a supporting substrate with an adhesive to the first surface so that the first and second wirings are covered with the supporting substrate;

back-grinding a second surface of the semiconductor wafer, the second surface being opposite to the first surface; and

reducing a roughness of the back-ground second surface by etching the back-ground second surface.

12. (Withdrawn) The method of claim 11, wherein the etching comprises a wet etching.

13. (Withdrawn) The method of claim 12, further comprising:
etching selectively the semiconductor wafer to form a groove in the semiconductor wafer along the border; and

wet etching the second surface after forming the groove so as to round a corner of the groove.

14. (Withdrawn) The method of claim 2, 4, or 11, wherein the wet etching comprises dipping the semiconductor wafer into an etching solution.

15. (Withdrawn) The method of claim 13, wherein at least one of the wet etchings comprises dipping the semiconductor wafer into an etching solution.

16. (Withdrawn) The method of claim 1, 3 or 11, wherein the etching comprises a dry etching.

17. (Previously Presented) A method of manufacturing a semiconductor device comprising:

providing a semiconductor wafer comprising a first insulation film disposed on a first surface thereof and a wiring disposed on the first insulation film;

bonding a supporting member to the first surface;

forming a groove in the semiconductor wafer by etching a second surface of the semiconductor wafer, the second surface being opposite to the first surface;

rounding a corner of the groove by etching the second surface;

forming a second insulation film on the etched second surface to cover the rounded corner; and

removing parts of the first and second insulation films at an etching step to expose at least part of the wiring.

18. (Previously Presented) The method of claim 3, wherein the supporting member comprises a glass substrate.